

“JEN Associates Approach to QA and Initial Recommendations”

August 28, 2012



DIVISION OF
Health Care
Finance and Policy

Objectives for today's meeting

- Welcome and Introductions
- Preliminary Data Release: Status and Documentation
- JEN Associates
- Open Discussion

Preliminary Data Release: Status

- First completed application received from the Massachusetts Health Connector Authority
- The Massachusetts Health Connector intends to develop a state-specific risk adjustment model in support of its implementation of the Affordable Care Act
- Application was posted on July 13th for a 10 day comment period
- Application was approved by the DRC on Thursday, July 26th

Preliminary Data Release: Documentation

- The Division is working on documentation to accompany the preliminary data release:

Contents:

- History of Data Collection Effort and Broad Caveats
- File Layouts for Six File Types and Carrier-Specific Lookup Data
- External Source Code Sources
- Data Protection/Confidentiality: Masking Single and Combined Data Elements
- Linkage between Public and Restricted Files

Preliminary Data Release: Documentation

Contents continued:

- Linkage using Combined Data Elements
- Versioning Process
- Edits: Overview and Table of Edits
- Exemptions
- Variance Process
- Contact Information
- Glossary of Terms

JEN Associates

- “JEN Associates, Inc. was founded in 1985 with a single purpose: To enable state, federal and private policy makers to make better health care policy and operational decisions through the use of data and information”
 - National practice in health care analytics and research data hosting
- JEN Associates provided software, reports, and consulting services to the Division to further QA efforts

JEN Associates (continued)

Objectives of engagement:

- Design, develop and document the quality assurance measures to be applied to the APCD database. Each QA measure should be measurable (by definition) AND have consequences based on a comparison with an expected threshold or benchmark.
- JEN Assoc. was hired to provide guidance and help implement QA measures which will be applied to all levels of APCD data: data element, record, file and entire submission (example: all records in a medical claims submission or all records in an eligibility file) and guidance / specification for edits applied to linkage (example: measure how well the eligibility file matches the claims and determine thresholds for tolerance) based on the business needs.

JEN Associates (continued)

Objectives continued:

- Obtain production reports to be shared with the carriers for feedback on the quality and completeness of the data. The reports must contain QA measures on the quality and completeness within a data element, within a whole file (ALL records in a file), and ACROSS files. JEN has also introduced the concept of across time periods which is enormously helpful.

JEN Associates (continued)

In-Record Data Profiles

Profiles by carrier, file type and submission year including:

- Univariate distributions of all numeric fields
- Measurement of means, medians, ranges standard deviations
- Identification of value outliers that could affect statistical analyses
- Determination of the presence of negative values
- Rates of missing values
- Rates of valid values
- Top 50 frequencies of *alphanumeric* fields

JEN Associates (continued)

In-Record Data Profiles

Focus of Activities:

- Missing Values
- Leading 0's and Blanks
- Negative Numeric Values
- Date Values and Data Lag Impact
- Prioritization of Key Data Fields

JEN Associates (continued)

In-Record Data Profiles

Recommendations:

- Invest in developing a service taxonomy that permits the direct comparison of payments by uniform service types
- Use taxonomy to develop tolerance thresholds for key fields related to clinical care: admission diagnosis, primary diagnosis, CPT codes, ICD9 procedure codes, payments
- Build a data model based on set cutoff points for data updates

JEN Associates (continued)

Within a file and across multiple submissions

Focus of Activities:

- Continuity of data over time
- Completeness

“Do record count profiles over service dates show gaps in counts of records, people or payments?”

- Cross Record consistency checks
- Duplicate Data

“Are duplicate records in the database?”

“Are adjudication processes in place and complete?”

JEN Associates (continued)

Within a file and across multiple submissions

Recommendations:

- Execute time based profiles by from service month and payment month
- Establish schedule for versioning claims
- Identify carriers with duplicate records that exceed 10% of original claims submissions and not linked the versioning process. Request further documentation, explanation or replacement data.

JEN Associates (continued)

Cross File Linkage

Focus of Activities:

- Claims to Eligibility via beneficiary ID (carrier specific hashed ID)
- Claims to Provider via service provider IDs
- Eligibility to Product via the product ID

JEN Associates (continued)

Cross File Linkage

Can user match utilization to eligibility status in order to generate accurate denominators, link together key information, conduct person-level longitudinal analyses?

Will provider profiles be able to generated with linked data elements from claims and the provider file records?

Can eligibility status be linked to specific product information using the product file as a reference?

JEN Associates

Cross File Linkage

Findings :

- Linkage rates vary widely
- Partial Linkage is problematic
- Claims may match to eligibility, but benefit flags are not populated
- Inconsistency between eligibility time period and product begin and end dates

Recommendations:

- Need to work with carriers to understand and / or remediate linkage issues
- Recommend against using data with low linkage rates
(Caveat: Scope of analysis is within same organization id only.)

JEN Associates (continued)

Payer	# Eligible Unique IDs	# Eligible ID Months	\$ Medical	Lines Medical	\$ Dental	Lines Dental	\$ Pharmacy	Lines Pharmacy	# of Eligible Unique IDs with Medical Use	# of Eligible Unique Ids with Dental Use	# of Eligible Unique IDs with Pharmacy Use
XXXXXX	21,076	185,420	\$ 28,698,943	158,829	\$ -	-	\$ -	-	14,086	-	-
XXXXXX	1,951	13,446	\$ -	-	\$ -	-	\$ -	-	-	-	-
XXXXXX	768	8,053	\$ -	-	\$ -	-	\$ -	-	-	-	-
XXXXXX	389,375	3,248,775	\$ 378,850,786	3,120,825	\$ 20,583,479	254,981	\$ 33,820,426	460,963	118,171	70,850	41,835
XXXXXX	-	-	\$ -	-	\$ -	-	\$ -	-	-	-	-
XXXXXX	74,983	550,022	\$ 83,624,560	554,869	153,726	1,091	\$ 7,532,206	144,980	39,384	357	16,318
XXXXXX	142,810	1,550,170	\$ -	-	\$ 33,020,234	438,474	\$ -	-	-	86,922	-
XXXXXX	495	4,294	\$ 1,013,621	8,044	\$ -	-	223,106	3,536	364	-	265
XXXXXX	7,845	63,939	\$ -	-	\$ -	-	\$ -	-	-	-	-
XXXXXX	91,163	731,296	\$ 46,127,991	709,704	\$ -	-	\$ -	-	26,707	-	-

JEN Assoc. sample report based on matching preliminary 2010 eligibility data with preliminary claims data

Report is based on data submissions as of February 2012

DHCFP is actively working on remediation and compliance updates and has received multiple updates to APCD since this data

JEN Associates (continued)

Payer	# of Not Eligible Unique IDs	# of Not Eligible ID Use Months	\$ of Medical with no Eligibility	# of Lines of Medical with no Eligibility	\$ of Dental with no Eligibility	# of Lines of Dental with no Eligibility	\$ of Pharmacy with no Eligibility	# of Lines of Pharmacy with no Eligibility	# of Not Eligible Unique IDs with Medical Use	# of Not Eligible Unique IDs with Dental Use	# of Not Eligible Unique IDs with Pharmacy Use
XXXXX	22,135	22,253	\$ 6,084,233	22,598	\$ -	-	\$ -	-	22,135	-	-
XXXXX	1,192	2,274	\$ -	-	\$ 535,328	5,978	\$ -	-	-	1,192	-
XXXXX	7,160	13,115	\$ -	-	\$ 4,491,160	54,682	\$ -	-	-	7,160	-
XXXXX	292,154	423,801	\$ 163,569,808	1,110,067	\$ 3,622,096	44,504	\$ 10,964,644	180,834	268,750	12,987	23,764
XXXXX	1,482	7,101	\$ -	-	\$ -	-	\$ 1,834,564	21,468	-	-	1,482
XXXXX	90,370	236,140	\$ 159,310,005	913,728	\$ 234,681	1,466	\$ 5,438,010	101,739	88,408	497	13,592
XXXXX	11,505	17,602	\$ -	-	\$ 3,297,768	42,411	\$ -	-	-	11,505	-
XXXXX	1,060	1,524	\$ 606,791	4,497	\$ -	-	\$ 30,455	565	1,034	-	86
XXXXX	3,710	5,199	\$ 16,019	13,497	\$ -	-	\$ -	-	3,710	-	-
XXXXX	120,718	201,180	\$ 8,049,208	117,326	\$ 120,069	2,477	\$ 15,352,431	371,773	98,436	447	22,926

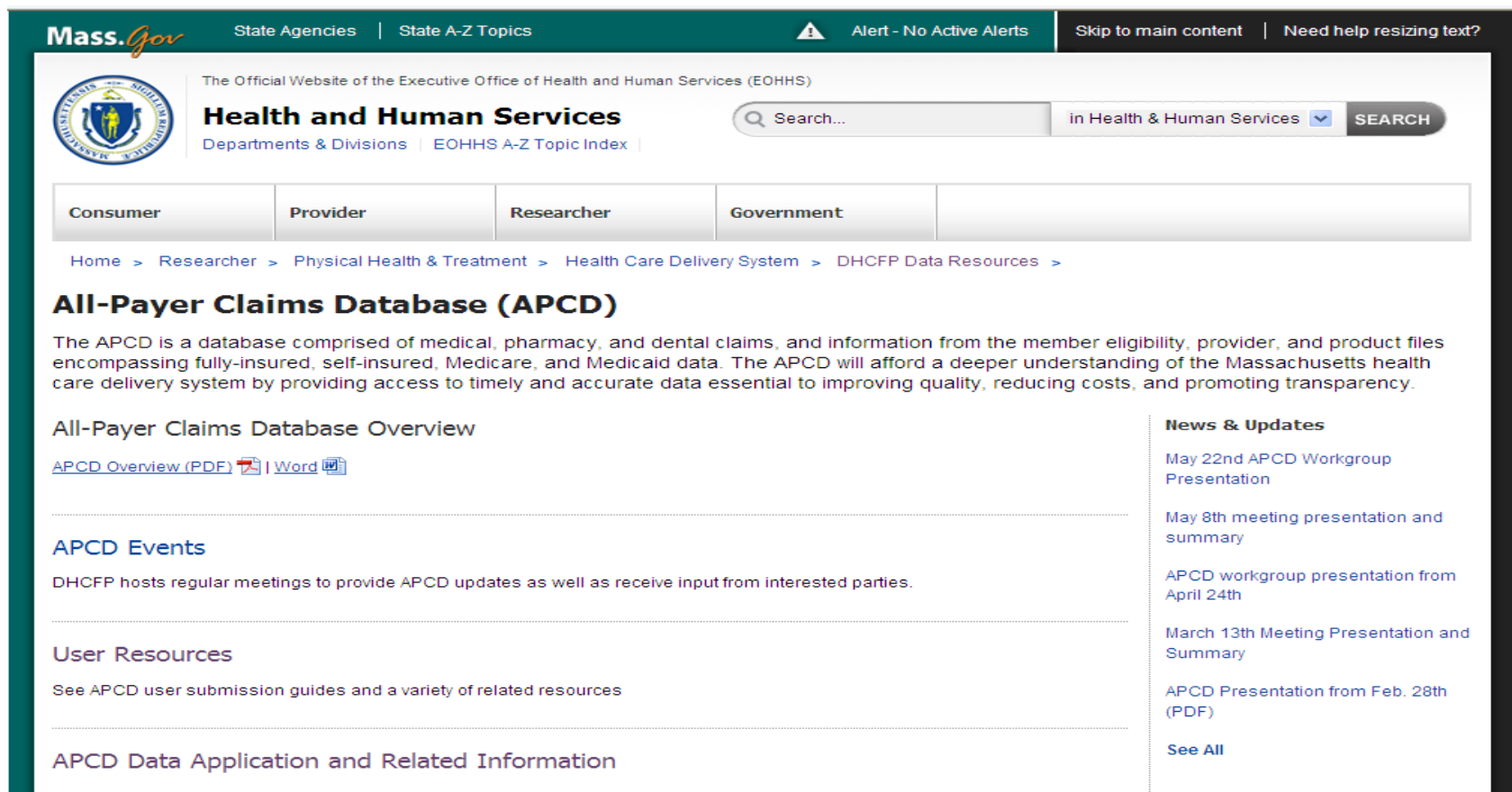
JEN Assoc. sample report based on matching preliminary 2010 eligibility data with preliminary claims data

Report is based on data submissions as of February 2012

DHCFP is actively working on remediation and compliance updates and has received multiple updates to APCD since this data

APCD Resources for Payers

Updated APCD Website - www.mass.gov/dhcfp/apcd



The screenshot shows the official website of the Executive Office of Health and Human Services (EOHHS) for the All-Payer Claims Database (APCD). The header includes the Mass.gov logo, navigation links for State Agencies and State A-Z Topics, an alert bar indicating no active alerts, and links to skip to main content or need help resizing text. The main content area features the EOHHS logo, a search bar, and a navigation menu with tabs for Consumer, Provider, Researcher, and Government. The Researcher tab is selected, leading to the APCD Data Resources page. The page title is "All-Payer Claims Database (APCD)". The introductory text states that the APCD is a database of medical, pharmacy, and dental claims, and member eligibility, provider, and product files, providing access to timely and accurate data essential to improving quality, reducing costs, and promoting transparency. The page is divided into three main sections: "All-Payer Claims Database Overview" with links to the APCD Overview (PDF) and Word document; "APCD Events" with information about regular meetings; and "User Resources" with links to user submission guides and related resources. A "News & Updates" sidebar on the right lists recent presentations, including the May 22nd APCD Workgroup Presentation, the May 8th meeting presentation and summary, the APCD workgroup presentation from April 24th, the March 13th Meeting Presentation and Summary, and the APCD Presentation from Feb. 28th (PDF). A "See All" link is provided at the bottom of the sidebar.

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All-Payer Claims Database (APCD)

The APCD is a database comprised of medical, pharmacy, and dental claims, and information from the member eligibility, provider, and product files encompassing fully-insured, self-insured, Medicare, and Medicaid data. The APCD will afford a deeper understanding of the Massachusetts health care delivery system by providing access to timely and accurate data essential to improving quality, reducing costs, and promoting transparency.

All-Payer Claims Database Overview

[APCD Overview \(PDF\)](#) | [Word](#)

APCD Events

DHCFP hosts regular meetings to provide APCD updates as well as receive input from interested parties.

User Resources

See APCD user submission guides and a variety of related resources

APCD Data Application and Related Information

News & Updates

- May 22nd APCD Workgroup Presentation
- May 8th meeting presentation and summary
- APCD workgroup presentation from April 24th
- March 13th Meeting Presentation and Summary
- APCD Presentation from Feb. 28th (PDF)

[See All](#)

For more information:

Upcoming Schedule	
APCD Combined Workgroup 4 th Tuesday of each month	Next meeting on September 25 th
APCD Technical Assistance Group (TAG) Webinar 2 nd Tuesday of each month	Next meeting on September 11 th

- Send questions and feedback to dhcfp.apcd@state.ma.us
- For more information, including important updates and events, please visit: www.mass.gov/dhcfp/apcd